ENVIRONMENTAL NEWS

Newsletter of the N.H. Department of Environmental Services January/February 2007

Governor's Message

Let's make New Hampshire a center of energy innovation

As I travel across New Hampshire meeting with business leaders and families, one of the most common concerns I hear about is the instability of energy costs and their impact on our economic future.

New Hampshire has long been at the forefront of economic change – from manufacturing in the 19th century to the high-tech economy of the 20th. Now we must act to make New Hampshire a center of energy innovation.

Governor Lynch

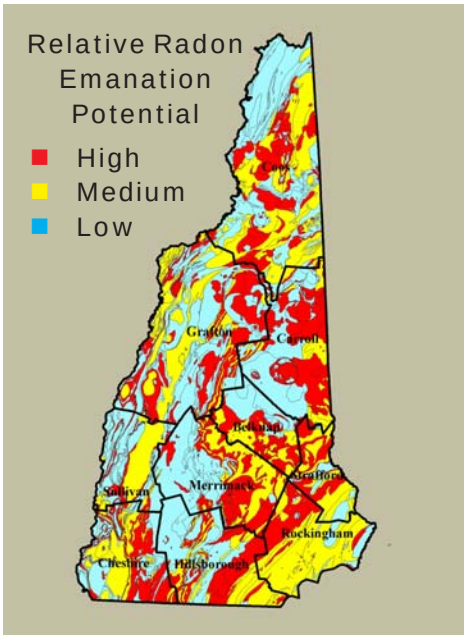
That is why we should set a goal of ensuring 25 percent of our energy comes from renewable sources by 2025.

As part of a national energy policy, more renewable energy will help stabilize energy costs for all our businesses and help make our nation more secure. As part of New Hampshire's energy strategy, it will give us more choices; it will make our air and water cleaner; and it can help create jobs right here in our state – by expanding uses for our wood products, in building and operating clean power plants, and in research and development.

Governors of both parties and busi-

Governor, *continued on page 12*

January is National Radon Awareness month



This month, communities across the nation will lead activities and host special events to increase awareness of the health effects of radon exposure and to promote radon testing, mitigation, and radon-resistant new construction. DES invites you to join our efforts to increase radon awareness in New Hampshire and help prevent thousands of lung cancer deaths.

Radon is a naturally occurring radioactive gas that emanates from rocks and soils. It becomes a human health hazard when it accumulates in high concentrations in indoor air. Radon is the second leading cause of lung cancer in the United States. New Hampshire has some of the highest levels of radon in the country. It is estimated that radon causes more than 14 percent of all lung cancer deaths in the

Radon, *continued on page 11*

Commissioner's Column

A new chapter begins at DES

Society seldom achieves significant change in a short period of time. However, change implemented over a long period of time yields measurable results. This is true of New Hampshire's environment. Imagine for instance what the land that we now know as the White Mountain National Forest looked like a century ago after years of abuse and over-logging. Or consider the improvements in air and water quality that have been achieved in the last 30 or 40 years since the birth of the environmental movement, including the creation of the New Hampshire Department of Environmental Services just some 20 years ago.

The steps that DES has taken over its history show the signs of measurable results. Of course, to achieve sustained improvements, more steps are needed,

Commissioner's Column, *continued on page 2*

Commissioner's Column

continued from page 1

knowing that our actions today will have a positive impact on the New Hampshire of tomorrow.

During my term as Commissioner, DES will be committed to bringing a strategic, long-term approach to the management of our water, air resources, and waste management programs – an approach which is firmly grounded in both science and the law, and which is in the best interest of our state.

The way that we choose to address the challenges of today will surely have a lasting impact. Dramatic growth is anticipated to continue in our state, and DES will be a leader in promoting sustained economic growth without compromising environmental protection by providing assistance and information to decision makers, so they can better integrate environmental and public health considerations into future land use plans. Among other things, this will mean developing a more comprehensive understanding of the state's groundwater and surface water resources, and their potential to support our quality of life for the indefinite future.

Our state's forest resources also have the potential, if managed for the long-term, to not only protect our water quality but to also provide an indigenous, renewable source of energy. DES supports the implementation of a renewable portfolio standard that helps address the challenge Governor Lynch has issued, committing New Hampshire to a national effort to produce 25 percent of the energy consumed in New Hampshire and the United States from renewable sources by 2025.

We will all need to work together if we are to sustain the strong economy and high quality of life to which New Hampshire's citizens have become accustomed. One of my goals as Commissioner is to build and improve upon the partnerships that DES has with municipalities, business, industry, trade organizations and environmental organizations. DES will be dedicated to greater education and outreach efforts, so that the public and the regulated community will better understand how our individual and collective decisions affect our health and our natural environment. DES will work closely and cooperatively with our legislators, executive councilors, governor and sister state agencies, to help craft approaches that will promote both a vibrant economy and a healthy environment.

I look forward to meeting these challenges together. When society looks back on our efforts, it will see that the work we committed ourselves to profoundly improved New Hampshire's economic and environmental health for the long-term.

Thomas Burack
Commissioner

Pat Bickford: DES Employee of the Year

At its annual Holiday celebration, Commissioner Thomas Burack announced the selection of Patricia Bickford as the 2006 DES Employee of the Year. Pat is the administrator of the DES Laboratory and has served in that post for more than 15 years. Her staff nominated her for the honor based in part on her success in implementing an innovative Laboratory Information Management System, which will enhance customer service, record-keeping, and analytical results. Pat has led by example and represents the best that DES has to offer. Pat was chosen from the ten staff members nominated this year for the prestigious honor. Congratulations, Pat! ■

Commissioner Burack presents Pat Bickford with the DES Employee of the Year trophy.

ENVIRONMENTAL NEWS

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29 Hazen Drive • Concord, NH 03301
603-271-3503
www.des.nh.gov
editor@des.state.nh.us
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Shoreland Act studied

Changes to be debated in 2007 legislative session

In 1991, the New Hampshire Legislature enacted RSA 483-B, the Comprehensive Shoreland Protection Act (CSPA), in an attempt to prevent significant negative impacts to public waters caused by uncoordinated, unplanned and piecemeal development along the shorelines of the state's seacoast, estuaries, lakes, ponds, rivers and streams. Since that time, efforts have been made to implement the act in a clear and consistent manner, while supporting the goals of local communities and protecting the rights of shorefront owners. As with any such complex initiative, difficulties have arisen over the years in achieving those goals. As a result, the Legislature authorized a commission comprised of 24 members representing various stakeholders from the public, commercial, regulatory and scientific communities to examine those difficulties and recommend changes to improve the effectiveness of the act under the auspices of Senate Bill 83 (Chapter 209, Laws of 2005).

Among the problems identified were inadequate staff and resources to ensure compliance with development standards, and to provide education and outreach services to communities and the general public to explain the requirements of the act. Difficulties also arose related to the existence of inconsistent primary building line setbacks among communities, the practical application of the basal area standard for measuring the natural woodland buffer zone, increased storm water run-off, erosion, and sedimentation to surface waters caused by rising development pressures, and the continued expansion of non-conforming structures.

After more than a year of information-gathering, testimony and discussion, the commission members reached consensus on 17 recommendations, including the establishment of permitting fees to support added staff positions, education and outreach efforts, limits on the extent and location of impervious surfaces constructed within the shoreland zone with incentives added to protect or enhance a newly-defined "waterfront buffer" area, and the adherence to the 50-foot primary structure setback by all communities. The group also suggested DES adopt rules outlining standard information to be required with all applications, both state and local, for permits, variances, and waivers related to work within the protected shoreland.

Revisions to the CSPA would help to establish consistency among communities on shoreland setbacks and buffer zones.

Recommendations that emerged from this study will be carefully examined during the 2007 legislative session. The outgrowth of these deliberations should result in an act that is easier to interpret and apply, more understandable by those who are affected by it, and more protective of the state's precious surface water bodies. The report will be available on the Shoreland website at www.des.nh.gov/cspa/ and through the PIC office, (603) 271-2975. ■

Saving energy, one light at a time

The Change a Light, Change the World campaign in New Hampshire is reaping some impressive benefits. By taking a pledge to change one light to an energy efficient compact fluorescent bulb, New Hampshirites are saving energy and money, and reducing greenhouse gases. Considering its size and population, New Hampshire's results are extremely high compared to other states nationwide. Here are the results of this year's campaign as of December 8, 2006.

Total pledges for NH: 3,648

Number of bulbs replaced: 9,389

Energy costs savings: $264,770

Reductions of greenhouse gases: Over 4 million pounds

If all the households in New Hampshire took the Change a Light Pledge and changed just one incandescent light bulb to an EnergyStar qualified light bulb, the combined individual efforts would:

- Save up to 25 million kilowatt-hours of electricity per year — enough energy to light all the households in Concord for 270 days!
- Reduce household electrical bills by a combined total of $3.3 million a year, based on the average electrical rates in the state.

Better black bear management

Part of study takes place on DES-owned land

By Stephanie Coster, UNH

Black bear populations in New Hampshire have recovered from record low populations in the mid-1800s and are now at a record high statewide. Historical land clearing practices, coupled with liberal harvest policies and a bear bounty system, threatened the black bear population. The elimination of the bounty system in 1955, along with land use changes such as farm abandonment and the implementation of science-based regulations regarding bear harvest, have facilitated population recovery.

Black bear. Photo from US National Parks website.

Prime black bear habitat is characterized by large blocks of unfragmented forested land. Based on habitat assessments, an estimated 77 percent (6,854 square miles) of New Hampshire's total land is potential black bear habitat. But how many bears are actually out there?

A black bear study initiated in the summer of 2006 is attempting to answer that very question using innovative techniques for estimating population size. Recently, black bear populations in New Hampshire were estimated using a complex analysis of bear hunting data in conjunction with bear observations made by deer hunters. New Hampshire's method for estimating regional bear densities had not been verified through field studies until now.

Researchers at UNH, working in conjunction with the Fish and Game Department, are using genetic-tagging to estimate black bear populations in two study sites in Coos County (Pittsburg and the greater Milan area). Genetic tagging is a sampling technique that allows for identification of individuals by collecting hair samples and performing DNA analyses on the hair to determine unique genetic fingerprints. Traditionally, bears had to be captured in traps and anesthetized in order to take blood samples for DNA work. This technique was labor intensive and costly. The genetic tagging technique is less invasive, requires no bear-handling, and is more cost efficient.

A field technician collects bear hair from a trap, which consists of a single barbed wire strand 40 centimeters above ground, approximately 20 meters long, strung around four corner trees. Photo courtesy of UNH.

A hair trap consists of a single barbed wire strand 40 centimeters above ground, approximately 20 meters long, strung around four corner trees. The study entails two sampling areas, each approximately 100 square miles in size, with 50 traps placed per sample area. One trap is situated on DES land in the greater Milan area. Traps are baited with a scent lure and attracted bears crawl underneath the barbed wire, which snags their hair in the barbs. The hair is later collected and sent to a lab for genetic analysis. Traps are checked for eight weeks, and the genetic information identifies individuals. Once individuals are identified, researchers can tell if they are old or new captures, and that ratio can be used to estimate the larger population.

By estimating black bear populations using this new technique, the Fish and Game Department will be able to assess the accuracy of their current bear population estimation methods. If results confirm the accuracy of existing methods, then Fish and Game can proceed with those methods. If results indicate current methods lack accuracy, then adjustments will be made accordingly. In any case, this exciting project will help ensure that our invaluable bear resources continue to be responsibly managed, for our good and the good of future generations. Also, the genetic information is valuable because it can be used to look at bear movement, identify related bears, and study the mating behavior and social organization of black bears. ■

Underwater green thumb: aquatic gardening in Lake Massasecum

By Amy P. Smagula, Limnologist/Exotic Species Program Coordinator

In 1996, variable milfoil (*Myriophyllum heterophyllum*) — New Hampshire's #1 exotic aquatic plant — was identified in Lake Massasecum, a 400-acre lake located in Bradford. Even following DES's coordinated diver surveys and hand-removal projects, an herbicide treatment in 1997, successive years of lake resident-coordinated mechanical harvesting and benthic barrier placement on the lake bottom, variable milfoil persisted.

Luckily, some quick actions on the part of both lake residents and DES biologists led to the containment of the milfoil infestation to the northern end of the lake. With the use of fragment barrier nets strung along the mouth of the northern cove, the milfoil was successfully contained to one area of the lake, until a management practice was found to control milfoil in the long term.

When federal money became available for milfoil research, New Hampshire took the opportunity to lead a number of experimental management approaches for variable milfoil control. Lake Massasecum was one of the waterbodies chosen for study. The approach selected required milfoil to be physically removed from the lake system and native plants transplanted into the harvested areas to inhibit re-growth of milfoil. The premise was that the right combinations of native plants may inhibit milfoil re-growth through a combination of allelopathic means (basically, chemical warfare among plants) and physical competition for space.

In 2005, DES divers and hired consultants established four experimental sampling plots in the northern end of Lake Massasecum. A diver-assisted suction harvesting device was brought in to remove milfoil from the treatment plots and a control plot. As these milfoil plots were cleared, teams of divers harvested patches of native plants from elsewhere in the lake (complete with roots and sediments), and transplanted them to the milfoil-free suctioned areas.

In the summer of 2006, DES biologists and consultants visited the treatment and control plot sites. Data revealed that the native plants were establishing themselves quite successfully, and milfoil re-growth, while present, was not abundant. Additional suction harvesting was performed to remove plants that were missed in the 2005 management practice. Divers also removed individual stems that either re-grew from missed roots, or that were newly established from fragments derived from milfoil that remained in the control plots.

Harvesting device with bags of collected milfoil.

The project will evolve over the next few years, with continued monitoring and follow-up maintenance as needed. It is expected that the final results from this study will show that suction harvesting to remove exotic plants, followed by transplanting or other introduction of native plants, will be a successful management tool for small limited infestations of exotic plants.

Texas, Florida, Wisconsin and other states are also experimenting with this approach, but for other invasive species like Eurasian milfoil and hydrilla. This technique is also recognized by the national Aquatic Plant Management Society as a viable option for exotic aquatic plant control. For more detailed information about this project, or the other five projects that are being funded under the federal milfoil appropriations, please contact Amy Smagula at asmagula@des.state.nh.us, or (603) 271-2248. ■

Diver-assisted harvesting device in action.

Buried asbestos waste in Southern New Hampshire

Over the past two years, DES Waste Management Division staff have embarked on an outreach and education campaign to provide awareness and technical guidance to property owners, contractors and environmental consultants regarding the dangers of asbestos waste. DES regulates asbestos under two programs: the DES Air Resources Division regulates building abatement, licensing/certification and enforcement activities, while the DES Waste Management Division regulates the management, transportation, disposal and investigation/remediation of buried asbestos waste.

Products containing asbestos were manufactured in Nashua, Meredith and Tilton until circa 1985. These manufacturing processes generated asbestos waste materials, which were unregulated at the time, and the former Johns-Mansville Company in Nashua gave away its asbestos waste as free fill to the local community. As a result, the free fill was used for leveling residential and commercial properties, as roadway base and as river bank stabilization. The full impact and distribution of the asbestos waste can be encountered nearly anywhere in Hudson and Nashua.

Why should you be concerned? Asbestos presents a health risk when inhaled or ingested and can become an environmental contaminant when it is allowed to wash into surface water. Exposure to asbestos can cause various diseases, such as asbestosis, lung cancer and mesothelioma. These diseases can take as long as 15 to 30 years to manifest themselves.

Homeowners and professionals can expose themselves and others to asbestos with such ground-disturbing activities as gardening or landscaping, lawn-mowing, drilling and excavation, and underground storage tank installations. You may be at risk even by walking across a site where asbestos waste is exposed on the ground surface, or carry it on your boots or clothing into your motor vehicle or home.

Typical buried asbestos waste in New Hampshire.

What do the rules require? Only a certified asbestos disposal site contractor or licensed asbestos disposal site worker can enter a known asbestos disposal site to excavate or disturb the ground where asbestos is present. If you are not certified or licensed and encounter asbestos waste during any site work, you must cease all operations, secure the site, and obtain the services of a qualified contractor or worker.

If you are interested in awareness training or would like to obtain the appropriate license/certification, please contact DES staff. For certification and licensing, contact Joy Perkins, Air Resources Division, at (603) 271-4609. For information regarding the DES Asbestos Disposal Site Program, listing of known sites, applicable rules, and guidance documents, please contact Mark Ledgard, Asbestos Disposal Site Program manager, at (603) 271-7376 or at mledgard@des.state.nh.us. Additional information is available at des.nh.gov/sw/asbestos_1.htm or www.des.nh.gov/ard/asbestos.htm. ■

LMC re-established

The DES Labor/Management Committee (LMC) has been re-established. The purpose of the committee is to foster open communications between management and employees about policies and other departmental issues that affect employees. The goal of the committee is to maintain a cooperative atmosphere within the agency and to reduce the number of grievances and appeals. The LMC meets on the fourth Tuesday of every other month. The committee considers issues that affect more than one individual.

The committee consists of five management representatives from the major divisions within DES and four of the DES stewards and the SEA field representative assigned to the agency. The current committee members are: Pam Sopczyk, Human Resources; Harry Stewart, Water Division; Steve Dolloff, FWWTP; Kent Finemore, Air Division; Fred McGarry, Waste Division; Sheila Heath, Laboratory; Vicki Whittemore, Water Division; Doug Laughton, Air Division; Bill Evans, Waste Division; Steve McCormack, SEA Senior Field Representative; and ex-officio member Mike Walls, Assistant Commissioner. The committee is co-chaired by Pam Sopczyk and Sheila Heath.

Employees are invited to present issues through their supervisory chain of command, except in unusual circumstances, before bringing the issues to the LMC. Employees may bring their concerns to any committee member who will then request the item be placed on the agenda, which will be available on the DES Intranet prior to the meeting. The committee looks forward to addressing items of concern to employees with the hope of creating and maintaining a superior work environment at DES. ■

WRBP Director Dick Flanders (in red) and staff pose with their 2006 EPA regional award prior to winning the EPA national first place award.

WRBP presented with 2006 EPA National Award of Excellence

This past fall, the Winnipesaukee River Basin Program was notified that it won the National First Place Award in the Large Secondary Plant Operations and Maintenance (O&M) Excellence category, as part of the annual 2006 U.S. EPA Clean Water Act Recognition Awards selection process. The WRBP qualified to compete with the nine other EPA regional winners for the national title after receiving top honors in EPA's Region I competition last year.

Areas in which the WRBP excelled include: (1) an outstanding compliance record - no discharge (NPDES) violations in nearly three years; (2) outstanding utilization and reliance of automation to save time, energy and money; (3) implementation of a comprehensive and high quality equipment maintenance program; (4) development of an effective and proactive process control and field monitoring program; and (5) outstanding residuals management program.

The awards were established to recognize the staff of publicly owned wastewater treatment plants for their commitment to improve water quality not only with outstanding operation and maintenance, but also through a combination of continued permit compliance, effective financial management, and on-going operator training. ■

w w w . d e s . n h . g o v

Interim rules adopted for Aquatic Resource Mitigation fund

People applying for a Wetlands permit have a new option available to them when addressing necessary mitigation requirements of their application. The recent adoption of interim rules for the Aquatic Resource Mitigation Fund (ARM) authorizes the collection of mitigation funds in lieu of other forms of wetland mitigation for certain small projects. The ARM program was authorized by legislation that was signed into law by Gov. Lynch in June 2006.

Traditionally, compensation for wetland impacts is achieved through creating a new wetland, restoring a former wetland site, or protecting a high-quality aquatic resource by preserving adjacent upland habitat. Most wetland mitigation is still done by the person getting the permit, and the mitigation effort usually takes place on or near the site of the proposed development. Some studies have shown that many of the mitigation efforts fail to offset lost wetland functions.

The ARM fund can be spent on projects that address specific needs of a watershed where the permitted wetland impacts are occurring. This type of process, more commonly referred to as an *in-lieu fee program*, is ideal for projects that have difficulty in locating an appropriate mitigation site. In such cases, the applicant would pay into the ARM fund where such fees are pooled and contribute to ongoing restoration or creation efforts, or improve upon known preservation projects that would have immediate environmental results.

With the payment of the agreed-upon fee, some or all of the permittee's responsibilities for wetlands mitigation shift to the ARM fund. The permittee is not responsible for wetland construction, wetland acquisition, stewardship and monitoring, and can concentrate on the development project at hand.

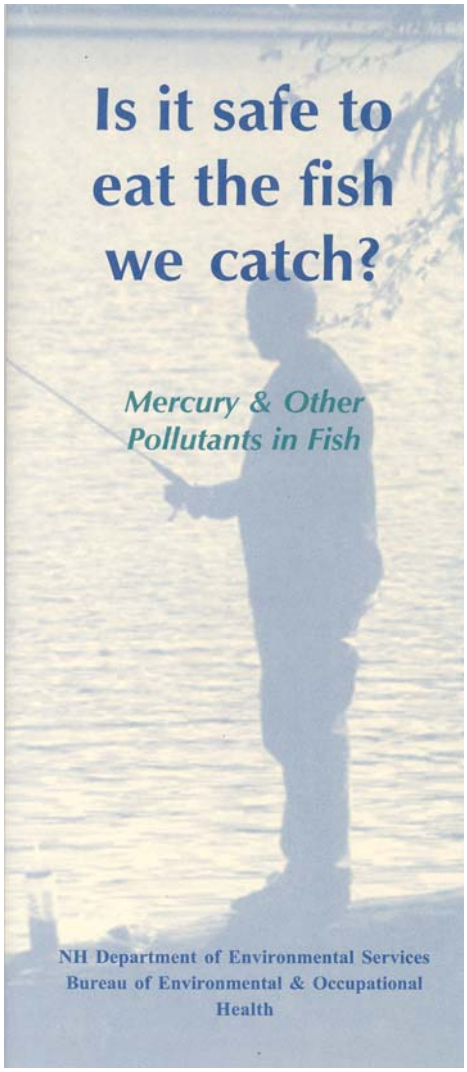
By pooling funds from many projects, the ARM fund has the potential for long-term environmental results from wetland mitigation that considers watershed goals, assists conservation efforts in recognizing green infrastructure plans of a town or region, and has the ability to target important and vulnerable wetlands in a region.

The interim rule may be viewed online at www.des.nh.gov/rulemaking/#awetlands.

It is anticipated that the final version of the rule will not vary much from the interim version. The final rule is expected to be in place by May 17, 2007. For more information on the ARM fund, please contact Lori Sommer, DES Wetland Bureau, at (603) 271-4059. ■

DES receives grant to clarify mercury and fish consumption message

DES is launching a mercury and fish consumption awareness outreach effort, thanks to a $14,400 Healthy Communities Grant from EPA Region 1. Our goal is to provide improved communication to women of childbearing age to clarify the risk perception regarding mercury and fish consumption. The DES Environmental Health Program will collaborate with the Dartmouth Toxic Metals Program and the New England Interstate Water Pollution Control Commission to develop a new brochure for women's medical care providers.



State and federal fish consumption guidance advises pregnant women to limit their intake of tuna, swordfish and certain other salt and freshwater fish that may contain mercury. The goal of the guidance is to ensure that women continue to eat fish and shellfish because of the nutritional benefits, while encouraging them to take steps to reduce their exposure to mercury. Unfortunately, some pregnant women have decided that it is safest to avoid eating fish altogether during pregnancy.

The current fish consumption advisory message omits emphasis on the known health benefits of fish consumption for pregnant women. The diet of the majority of US women is deficient in omega-3 fatty acids, which are obtained mainly through eating fish. Omega-3 fatty acids are known to be necessary for the proper development of the visual and nervous systems. Additionally, adequate maternal omega-3 fatty acid nutrition is associated with decreased incidence of preterm delivery and low birthweight.

The DES outreach effort will clarify the benefits of eating fish for women of childbearing age by providing clear, simple guidelines for women to follow. The communication materials produced as a result of the EPA grant will focus on eating more fish but selecting fish that are low in mercury.

Guidelines for Fish and Shellfish Consumption

Fish and shellfish are an important part of a healthy diet. Nearly all fish and shellfish contain traces of mercury. Women and young children should follow these three recommendations for selecting and eating fish or shellfish.

- Do not eat shark, swordfish, king mackerel, or tilefish because they contain high levels of mercury.
- Eat up to 12 ounces (two average meals) a week of a variety of fish and shellfish that are lower in mercury.
- Check advisories about the safety of fish caught locally. If no advice is available, eat up to six ounces (one average meal) per month and do not consume any other fish during that month.

Five of the most commonly eaten fish that are low in mercury are **shrimp, canned light tuna, salmon, pollock, and catfish**. Albacore (white) tuna has more mercury than canned light tuna. Eat up to six ounces (one average meal) of albacore tuna per week.

If you're not a child or a child bearing female, select a variety of seafood if you plan to consume more than two seafood meals per week. Remember, eating seafood that is low in mercury is a healthy dietary choice with both cardiovascular and neurological benefits. Make your choices wisely!

For more information, contact Sherry Godlewski at sgodlewski@des.state.nh.us or (603) 271-6801, or Pam Schnepper at pschnepper@des.state.nh.us or (603) 271-3994. ■

For the NH Fish Advisory, see www.des.nh.gov/pdf/Mercury_Fish.pdf.

State submits plan to EPA to meet federal Clean Air Mercury Rule requirements

by Mike Fitzgerald, ARD Technical Services Bureau Administrator

In continuing efforts to reduce mercury emissions in the state, the New Hampshire Legislature passed House Bill 1673 (Chapter 105, Laws of 2006) to address mercury emissions from coal-fired utilities. The new legislation requires a minimum of 80 percent reduction in mercury emissions by July 2013 from the state's coal-fired electric generating facilities. Specific key features of Chapt. 105 are: 1) installation of scrubber technology to achieve mercury reductions at the largest generating facility; 2) economic incentives for early and surplus (greater than 80 percent) emissions reductions; and 3) prohibition on the purchase, transfer, or sale of federal mercury credits to achieve required reductions. There are five units within New Hampshire that are subject to Chapt. 105, all currently owned and operated by the Public Service of New Hampshire. This legislation is designed to achieve the greatest, most cost-effective and timely local mercury emission reductions from these facilities.

Concurrent with the deliberations on HB 1673, the federal EPA promulgated the Clean Air Mercury Rule (CAMR), which also applies to coal-fired electric generating units and includes a federal cap-and-trade program. New Hampshire, as well as a number of other states and organizations, has challenged CAMR in federal court, including CAMR's legality relative to using cap-and-trade programs for the control of mercury emissions from power plants. The legal challenge claims that CAMR does not guarantee emissions reductions in the immediate vicinity of the power plants where mercury deposition impacts are more significant.

As required by CAMR, New Hampshire submitted a plan to EPA in November demonstrating how the state will meet statewide mercury emission limitations set forth in CAMR. CAMR sets emissions limitations as follows: 126 pounds in 2010 and 50 pounds in 2018. The cap-and-trade program included in CAMR and the first emissions deadline of 2010 are clearly inconsistent with the state's legislation of 80 percent reduction by 2013.

Regardless of the resolution of the legal issues, New Hampshire has submitted a state plan to EPA that is intended to satisfy the requirements of CAMR while retaining state authority over local mercury emissions. The state plan calls for the adoption of rules that provide flexibility in meeting CAMR for the interim period 2010-2013, while still ensuring far greater localized reductions (well below the 2018 CAMR limit of 50 pounds) for 2013 and beyond (after scrubber installation).

An important point of the state's plan is that New Hampshire would not be participating in any trading of mercury allowances, and would not be seeking approval to participate in the CAMR cap-and-trade program. Furthermore, New Hampshire's proposal recognizes and ensures the precedence of the long-term approach to most cost effectively reduce mercury emissions that is the will of the General Court and Governor as expressed in Chapt. 105. This approach would allow New Hampshire to comply with federally imposed obligations pending the court challenge, without impeding the progress of implementing mercury reduction technology required under Chapt. 105.

DES is committed to enforcing the requirements of state mercury legislation to ensure that maximum mercury reductions are achieved without a negative impact on electricity operating capacity or rates. ■

Local group improves water quality while changing lives

The Acton Wakefield Watersheds Alliance (AWWA), a group of community residents and lake association members, successfully completed the first season of its Youth Conservation Corps (YCC) this summer. The successes of this program proved to be above and beyond expectations with a group of local volunteer high school students empowered to change water quality and their lives.

As the first YCC to work in New Hampshire watersheds, this success didn't come easily. A group of hardworking, passionate, and dedicated volunteers and their partners made it possible.

Over the course of their eight-week season, the crew leader and crew members completed 10 projects in their service area. Projects included several rain gardens, vegetated buffers, rubber razors and infiltration trenches to control runoff and prevent soil from reaching the lakes and tributaries. It is estimated that these projects will keep 15+ tons of sediment out of the lakes each year. In addition to the construction projects, project staff also provided technical assistance to 37 landowners on eight different lakes.

The YCC students also generated significant public interest and support for AWWA and the YCC. After seeing the results of the first season on a public tour

YCC, *continued on page 12*

The true adventures of a state land agent, Or, secrets of field and stream revealed

By Mark Stevens, DES Dam Bureau Land Agent

It started as a normal enough day. Jim Gallagher, Bethann McCarthy and I were on our way to Silver Lake to do some investigation work for the Dam Bureau. We departed from the public boat launch downstream of the lake and putted up river. A short distance upstream, we saw something shiny reflecting up through the water.

We floated over and peering down, saw a roof rack. And beneath the roof rack, a station wagon. The water was murky, but clear enough so that I could see a current inspection sticker on the windshield, so we knew it hadn't been in the river for long. But for how long? And, was anyone in the car?

We called 9-1-1 and reported what we had found. After some initial confusion as to what town we were in, who had jurisdiction and should respond, as well as some confusion with cell phone call-back numbers and directions to the site of the abandoned car, the fire department eventually arrived.

Back to the submerged car. We were able to make out the VIN number on the dashboard. The police ran the VIN through their database, which showed that the car had not been reported stolen, but attempts to reach the owner were unsuccessful. Not a good sign.

A scuba diver and a tow truck arrived, and the car was eventually dragged out. Nothing but one crayfish inside the car. As it turned out, the car *had* been stolen a day earlier, but the owner hadn't noticed it was missing, and so hadn't reported it. A somewhat happy ending.

As we left the crime scene and resumed our original task, Jim and Bethann asked me about some of the other things I've stumbled upon as a state land agent. Well, I've found several stolen or abandoned cars dumped deep in the woods on state property. Once, up in the Baker River Valley, I hiked into a remote piece of DES-owned land and discovered a cache of stolen TVs, VCRs, chainsaws, DVDs and other goodies. Turns out that local thieves had burglarized several homes and were using the state land as a repository for their stash while they were waiting to unload it.

There is always the problem of car tires, refrigerators, washing machines, building shingles, stumps, exercise equipment, computer monitors, etc. that local landfills no longer accept free-of-charge. "No-man's land," which usually belongs to the state, becomes a popular dumping spot. It's also a popular spot for planting marijuana gardens. I've discovered a few of them.

On two occasions I've come across dead bodies, and once I had an old guy clutch his chest, keel over, and die right in front of me while I was talking to him. Twice, I've found loaded guns on state property. One had been chucked into the water at one of our dam sites and was revealed during the fall drawdown of the lake. The other was a rifle left behind in a tree stand, when the hunter felt the "call of the wild." He was surprised to find me with his rifle when he returned. Although, on more than one occasion, I've been threatened by irate individuals who've been the ones holding the guns.

Speaking of animals, one time, acting on an anonymous tip, I found a black bear carcass dumped by poachers at a DES dam site. I rescued a skunk that had somehow fallen into a manhole on a cross-country sewer line that was under construction. And once I caught a horse that was running rider-less down the trail with her stirrups flapping and the reins dragging on the ground; a few minutes later I met the somewhat dazed and thrown rider. I also rescued a snowmobiler, who also lost her mount after crashing her machine off the trail. She was fine, but her snowmobile was crunched and she was walking out of the woods in the wrong direction.

Up at Lochmere, I came across a barbecue fire-box pit made out of headstones on DES property, which seemed rather gruesome to me, but when I tracked down the builder/owner, he thought it was pretty cool. And speaking of cool, there have been those hot summer days when I've hiked into a remote and lonely dam site to find skinny-dippers enjoying the cool water. ■

w w w . d e s . n h . g o v

DES staff recognized for service milestones

10 Years

Frederick McGarry, WMD
Lisa Landry, ARD
Addison Mauck, WD
David Reid, WMD
Julie Joslin, CO
Linda Thompson, WD
Tricia Madore, WD
Paul Currier, WD
Kerry O'Connor, CO
Andrew Chapman, WD
David Larson, RD
Pamela Welch, WMD

15 Years

George Carrigan, WMD
Arthur O'Connell, Sr. , WD
Leonard Raposa, WD
Stergios Spanos, WD
Kendall Perkins, ARD
Raymond Walters, ARD
George Carlson, Jr., WD
Gregory Kirby, WMD
Robert Minicucci II, CO
David Rousseau, WMD
Paul Lockwood, CO
Kevin Riel, WD
Kimberly Donnellan, CO
Tod Leedberg, WMD
W. Gregg Comstock, WD
Eric Williams, WD
Leigh Morrill, ARD
Collis Adams, WD
Wendy Stout, WD
Vicki Whittemore, WD
David Chase, ARD
Michele Andy, ARD
Debra Brown, WD
Rudolph Cartier, Jr., CO
Stephen Sawicki, WD

20 Years

Carl Baxter, WMD
Jeffrey Andrews, WD
Michael Courser, WD
Patricia Bickford, CO
George Berlandi, WD
Karlee Kenison, WMD
Judith Ladd, CO
Brian Phelps, CO
Jimmy Leung, WD
Timothy Noury, WMD
Susan Chabot, CO
Wendy Waskin, WD
James Berg, WD
Marjorie Yin, ARD
Robert Livingston, WD
Stephanie D'Agostino, CO
Normajean Smith, CO
Denise Frappier, WD

25 Years

Laurie Cullerot, WD
Mary Power, WD

30 Years

William Haskell, WD

35 Years

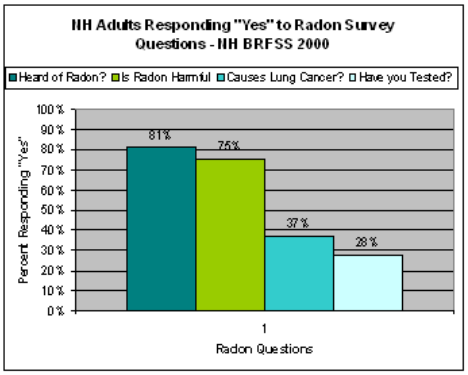
Stephen Snell, WD
Donald Corliss, WD

Radon

continued from page 1

US, and about 26 percent of lung cancer deaths among non-smokers. If a person smokes and his home has high radon levels, his risk of lung cancer is especially high.

Testing is the only way to find out if your home has radon and if you are at risk for exposure. Radon testing is even more important in New Hampshire due to the high incidence of radon in our bedrock. Even "low" radon areas in the state have a 10-20 percent chance of elevated radon. DES recommends that everyone test. People living in high radon areas might have some extra incentive for testing their homes.



DES recommends that both indoor air and drinking water wells be tested for radon. Testing is simple and inexpensive. Indoor air testing kits are available at hardware stores or by mail. Testing water for radon can be done with a special sample collection bottle, which is sent to a certified laboratory. Testing for radon in both air and water is an important part of protecting public health.

Despite its threat, radon awareness and related radon reduction behaviors among New Hampshire residents are lacking. In a 2000 Behavioral Risk Factor Surveillance Survey, it was found that only about one-third of New Hampshire adults know that radon causes lung cancer and less than 30 percent of New Hampshire residents have had their homes tested for radon. This means that about 300,000 New Hampshire homes remain untested, 100,000 of which likely have elevated radon levels.

If you do find that radon is a concern in your home, remember radon problems can be fixed. Reducing radon concentrations in homes (radon mitigation) involves venting radon from beneath the basement floor. Radon gas can be removed from drinking water by using an aeration process.

DES is working to increase participation in New Hampshire's radon home-testing program, especially in areas with highest risk of radon exposure. This in turn will help reduce the risk burden of lung cancer in the state. More information about radon can be found at www.des.nh.gov/ARD/EHP/Radon or by calling the Radon Program at (603) 271-1370. ■

Governor's Message

continued from page 1

ness leaders across the nation are joining together to support "25 x 25," a national effort aimed at producing 25 percent of the energy consumed in the United States from renewable sources by 2025.

I believe this is an achievable goal. Already 8 percent of the energy that is available to the grid that serves New England is from renewable sources. And 14 percent of the power that is available here in New Hampshire is from renewable energy.

Separate analyses by the Energy Information Administration and the Union of Concerned Scientists found that the country could generate 20 percent of its electricity from renewable sources by 2020 and reduce prices for electricity and natural gas customers. And based on modeling conducted by Lawrence Livermore Labs, even a 20 percent goal, combined with similar efforts in our neighboring states, could save New England residents between $82 and $204 million on their energy bills between now and 2020.

In addition, an Energy Administration Study found that increasing the use of clean, renewable energy could reduce by billions of dollars nationally the cost to consumers of meeting requirements to reduce pollution emissions from power plants.

Spurring the development of more renewable energy can help create jobs right here in New Hampshire, because we can find a big part of the solution to our nation's energy crisis right here in New Hampshire. Increasing renewable energy would take advantage of New Hampshire's ample wood supply, and encourage the responsible harvesting of lesser-grade woods – which will help preserve our forests from development.

And we already know that these types of investments can make financial sense. That is why PSNH has converted one of the Schiller Station units from coal to wood.

Wood-fired plants are a natural choice for New Hampshire, but we also need to look at other forms of renewable energy – solar, wind and hydro. All of these sources have great advantages for our state – providing competition to expensive oil and natural gas and adding much-needed diversity to our fuel supplies.

To help meet this goal, I will work with the legislature this year to help create a Renewable Portfolio Standard that will spur interest in the development of alternative fuels. I look forward to working with people across the state to ensure that New Hampshire is a leader in the energy industries of the future.

John Lynch
Governor

YCC

continued from page 9

The Acton Wakefield Watershed Alliance Crew from left to right: Chris Stanton, Nigel St. Pierre, Craig Hill, Sam Wilson, and Anthony Stanton works to improve shoreland protection.

and hearing heartfelt testimonials directly from the high school crew members during a presentation to the town, Wakefield increased funding for the program in 2007 – from $2,000 to $10,000. AWWA President Linda Schier acknowledged the high quality of the students' presentations, "Each one of them explained to the selectmen in his own words how he worked on a community level to reduce pollution."

One student, Craig Hill, had lost interest in school and was abusing alcohol and drugs before he became involved in the YCC. He noted that while residents may be used to seeing the kids hanging around downtown, the YCC work is a positive change. "I liked the aspect of us kids giving back to the community," said Hill. "It's good to see us doing something constructive."

AWWA will start up the second year of the YCC program this spring with most of the crew members returning for another year of hard work hauling rocks and dirt around to improve water quality in Acton and Wakefield's lakes. For more information about the AWWA YCC program, contact Barbara McMillan at (603) 271-7889 or Natalie Landry at (603) 559-1507. ■

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

PO Box 95
29 Hazen Drive
Concord, NH 03302-0095

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